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(54) TASTE MODIFIED HARD CONFECTIONERY COMPOSITIONS CONTAINING FUNCTIONAL INGREDIENTS

WIRKSTOFF ENTHALTENDE GESCHMACKMODIFIZIERTE HARTE KONFEKTPRODUKTE

COMPOSITIONS DE PRODUITS DE CONFISERIE DURES MODIFIEES AU GOUT, CONTENANT DES INGREDIENTS FONCTIONNELS

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US-A- 4 698 232

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US-A- 5 073 389

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Description**BACKGROUND OF THE INVENTION**

5 Field of the Invention:

[0001] This invention concerns the use of fats to suppress the unpleasant mouthfeel of functional ingredients in hard confectionery compositions. More specifically it concerns the use of saturated fats or partially hydrogenated vegetable oils to suppress the unpleasant mouthfeel of botanicals in hard boiled candy or hard gum compositions.

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Background of the Invention:

[0002] Functional ingredients, also known as nutraceuticals, are those food ingredients which generally provide therapeutic benefits when consumed in the diet. A drawback with the use of functional ingredients such as the botanicals, 15 is their unpleasant mouthfeel when orally ingested, usually an unpleasant tingling sensation or astringency.

[0003] The coating of pharmaceuticals in general with hydrophobic materials, especially lipids, with or without other materials to mask unpleasant mouthfeel, is taught in the art. These systems are generally directed toward providing coated particles of the pharmaceutical which can then be used in quick delivery formulations such as liquid suspensions, 20 quick dissolve tablets, capsules, syrups and the like. The coatings prevent release of the pharmaceutical until it has passed from the oral cavity into the gut. U.S. Patents 5,498,447, 4,865,851, 5,635,200, 4,953,247, 5,597,844, 5,320,848 and 5,494,681, Japanese Patents 7242568 and 08333243, and WO Patent Publications 94/05260, 96/10993 and 97/03656 all concern these methods of masking mouthfeel and/or providing stability until the pharmaceutical reaches the gut.

[0004] US-A-5 073 389 discloses a hard boiled candy composition comprising a confectionery base and an oil, US-A-25 4 698 232 disclosed a hard gum composition comprising a confectionery base and a botanical comprising dietary fibre, US-A-4 117 176 discloses a candy composition and a botanical comprising dehydrated fruit particles.

[0005] Although functional ingredients have been provided in various delivery forms by those skilled in the dietary supplement and food arts, the prior art delivery forms have not satisfactorily met the consumer need to be both efficacious and have an acceptable taste for oral ingestion, particularly when delivered to the oral cavity. It would be desirable 30 to provide the consumer with a food product, particularly with a hard confectionery product, containing functional ingredients wherein the unpleasant mouthfeel of the functional ingredient has been substantially reduced. It would be desirable to provide the consumer with a hard confectionery product which is both efficacious and have an acceptable taste.

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SUMMARY OF THE INVENTION

[0006] The present invention concerns a hard boiled candy composition comprising a confectionery base, a botanical having an unpleasant mouthfeel, and from about 0.5% to about 5.0% by weight of the composition of one or more partially hydrogenated vegetable oils, said amount being effective to suppress the unpleasant mouthfeel of the functional ingredient. The invention further concerns a hard boiled candy composition comprising a confectionery base, a 40 botanical having an unpleasant mouthfeel, and from about 0.5% to about 5.0% by weight of the composition of one or more saturated fats, said amount being effective to suppress the unpleasant mouthfeel of the botanical. The invention still further concerns a hard gum composition comprising a confectionery base, a botanical having an unpleasant mouthfeel, and from about 0.5% to about 5.0% by weight of the composition of one or more partially hydrogenated vegetable 45 oils or saturated fats, said amount being effective to suppress the unpleasant mouthfeel of said botanical.

[0007] More specifically the present invention is directed to a hard boiled candy composition or hard gum composition comprising a confectionery base, at least one botanical having an unpleasant mouthfeel comprising Echinacea, Siberian Ginseng, Ginkgo Biloba, Kola Nut, Goldenseal, Golo Kola, Schizandra, Elderberry, St. Johns Wort, Valerian or Ephedra and from about 0.5 to about 5.0% by weight of said composition of one or more partially hydrogenated vegetable oils or saturated fats, said amount being effective to suppress said unpleasant mouthfeel of said botanical.

[0008] Furthermore the present invention is directed to a method for suppressing the unpleasant mouthfeel of a hard boiled candy composition or hard gum composition which contains a botanical having an unpleasant mouthfeel comprising Echinacea, Siberian Ginseng, Ginkgo Biloba, Kola Nut, Goldenseal, Golo Kola, Schizandra, Elderberry, St. Johns Wort, Valerian or Ephedra, which comprises providing a confectionery base containing a botanical as defined above having an unpleasant mouthfeel, and, adding thereto from about 0.5% to about 5.0% by weight of said composition of one or more partially hydrogenated vegetable oils or saturated fats said amount being effective to suppress said unpleasant mouthfeel of said botanical.

[0009] As a result of the present invention, improved hard confectionery products are provided which have a sub-

stantial reduction in the unpleasant organoleptic sensations associated with the functional ingredients upon release of the functional ingredient from the confection in the oral cavity.

DETAILED DESCRIPTION OF THE INVENTION

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[0010] The invention concerns the use of fats to suppress the unpleasant mouthfeel of functional ingredients, also referred to herein as nutraceuticals, in confectionery products. By "functional ingredient" or "nutraceutical" is meant a material that offers the consumer some degree of nutritional or therapeutic benefit when consumed in the diet.

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[0011] Nutraceuticals having an unpleasant mouthfeel include botanicals, minerals and mineral salts. By "botanical" is meant a substance derived from plant source, that is, from roots, leaves, bark or berries of plants, and used in the human diet. Botanicals include, but are not limited to, Echinacea, Siberian Ginseng, Ginko Biloba, Kola Nut, Goldenseal, Golo Kola, Schizandra, Elderberry, St. Johns Wort, Valerian and Ephedra. Echinacea is a preferred botanical for the practice of the present invention.

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[0012] The amount of botanical used in the present invention may vary depending upon recommendations derived from the available scientific literature, and/or the recommended or permitted dosage for the particular agent in accordance with the guidelines of, for example, the Nutrition Labeling and Education Act of 1990 and the Dietary Supplement Health and Education Act of 1994, and the Food and Drug regulations implementing the Acts. The amount of functional ingredient present will also be governed by the constraints of the confectionery product formulation. In the practice of the present invention the hard confectionery product may contain up to 5% by weight of the botanical.

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[0013] The "fats" utilized by the present invention are partially hydrogenated vegetable oils and saturated fats. Partially hydrogenated vegetable oils include but are not limited to partially hydrogenated cottonseed oil, soybean oil, peanut oil, palm oil, sunflower seed oil and corn oil. The saturated fats include but are not limited to, palm kernel oil, coconut oil, cocoa butter, butter, and commercially available blends such as PARAMOUNT C (trademark of Durkee Industrial Foods).

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[0014] The unpleasant mouthfeel effects typically found with botanicals include tingling, burning, drying, and astringency. The unpleasant mouthfeel effects of botanicals, will develop slowly. All of these mouthfeel effects are generally found to be unpleasant and make the hard confectionery product in which they are incorporated less appealing. It has now surprisingly been found that when one or more partially hydrogenated vegetable oils of the present invention is added into the hard confectionery composition containing a botanical, the unpleasant mouthfeel effects are suppressed providing a product which is more acceptable to the consumer palate. It has further been found that when one or more saturated fats of the present invention is added into the hard confectionery composition containing a botanical, the unpleasant mouthfeel effects are suppressed providing a product which is more acceptable to the consumer palate. These effects have been found with partially hydrogenated vegetable oils and saturated fats present at a level of up to 5% by weight of the hard confection,

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[0015] The ratio of the saturated fat or partially hydrogenated oil to the functional ingredient may vary over a broad range and still provide an effective suppression of the unpleasant mouthfeel associated with the ingredient. The ratio may vary from about 1/1 to about 1/0.1. It is preferred to use a ratio of saturated fat or partially hydrogenated vegetable oil to functional ingredient in a ratio of from 1.0/0.6 to 1.0/0.15. Further, while the amount of saturated fat or partially hydrogenated vegetable oil may be present in the hard confectionery composition in an amount of up to 5%, suitably from about 0.5% to about 5.0%, by weight of the composition, an amount in the range of from 0.5% to 3.5%, and especially from 0.75% to 3.0%, is preferred.

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[0016] The preferred product uses a saturated fat or partially hydrogenated vegetable oil having a melting point of from about 95°F(35°C) to about 150°F (65.5°C), i.e., solid at ambient temperature. A preferred partially hydrogenated vegetable oil is partially hydrogenated cottonseed oil. Preferred saturated fats are palm kernel oil and butter.

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[0017] The confectionery compositions incorporating the nutraceuticals are referred to herein as hard confectionery compositions. A hard confectionery composition is one intended to reside in the oral cavity for a period of time while being consumed. In the practice of the present invention sugar and sugarfree hard boiled candy containing a botanical having an unpleasant mouthfeel, have been found to have a substantial reduction in the unpleasant organoleptic sensations associated with the nutraceutical. In the practice of the present invention, the unpleasant organoleptic sensation of hard gums containing botanicals having unpleasant mouthfeel is also effectively suppressed by a fat or oil of the present invention. Therefore, in the practice of the present invention, "hard confectionery composition" is understood to include hard boiled candy compositions containing botanicals and also include hard gum compositions containing botanicals.

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[0018] In an aspect of the present invention therefore a saturated fat or a partially hydrogenated vegetable oil is used to suppress the unpleasant mouthfeel of a hard boiled candy containing a botanical.

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[0019] In a further aspect of the present invention a saturated fat or a partially hydrogenated vegetable oil is used to suppress the unpleasant mouthfeel of a hard gum containing a botanical.

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[0020] In a further aspect of the present invention a partially hydrogenated vegetable oil is used to suppress the

unpleasant mouthfeel of a hard boiled candy containing a mineral or a mineral salt.

[0021] Hard boiled candy compositions generally have a candy base composed of a mixture of sugar and other carbohydrate bulking agents kept in an amorphous or glassy condition, preferably having from about 0.5% to about 3.0% moisture. The base may normally contain sugar and glucose in amounts of up to about 90% sugar and up to about 70% glucose syrup. Further ingredients such as flavoring agents, sweetening agents, acidulants, gelling agents, colorants and so forth may also be added. Hard boiled candies may also be prepared from non-fermentable sugars such as sorbitol, mannitol, xylitol, maltitol, isomalt, erythritol, hydrogenated starch hydrolysates and the like.

[0022] Hard boiled candy may be routinely prepared by conventional methods such as those involving fire cookers, vacuum cookers, and scraped-surface cookers also referred to as high speed atmospheric cookers. Once the candy mass has been properly tempered, it may be cut into workable portions or formed into desired shapes. A variety of forming techniques may be utilized depending upon the shape and size of the final product desired. A general discussion of the composition and preparation of hard confections may be found in E. B. Jackson, Ed. "Sugar Confectionery Manufacture", 2nd edition, Blackie Academic & Professional Press, Glasgow UK, (1990), at pages 129-169.

[0023] Hard gums compositions generally are a combination of a gum solution and a boiled syrup and have a moisture content of about 4-5%. The gum solution is prepared by soaking a gum, such as gum arabic, or a mixture of the gum arabic and gelatin, in water with gentle warming until dissolved. The syrup is a sugar and glucose mixture heated to boiling in water. The boiled syrup is poured into the gum solution with gentle mixing. Flavorants and other optional ingredients such as acids, colorants, humectants and the like, may be added. Hard gums may be formed by starch molding, sugar molding or molding techniques using plastic, metal and the like or by slabbing. Hard gums are typically formed by starch molding and such techniques are well known in the art. A discussion of hard gums and molding techniques may be found in Bernard W. Minifie, "Chocolate, Cocoa, and Confectionery", 3rd edition, Chapman & Hall, New York, NY, (1989), at pages 584, 519; and E. B. Jackson, Ed. "Sugar Confectionery Manufacture", 2nd edition, Blackie Academic & Professional Press, Glasgow UK, (1990), at page 189.

[0024] The invention is illustrated by the following non-limiting examples.

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EXAMPLES

EXAMPLE 1:

30 [0025] The following, unflavored, hard boiled candies and hard gums were prepared to illustrate the suppression of the mouthfeel effects of the nutraceuticals of the invention by a saturated fat or a partially hydrogenated vegetable oil of the invention. The compositions were prepared by conventional manufacturing techniques.

[0026] The compositions were evaluated by a professional descriptive panel as discussed further below. Formulas 1, 2, 5 and 6 are controls. Formulas A, B, C, D, G, H, I, and J are inventive.

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A. ECHINACEA IN A HARD BOILED CANDY						
INGREDIENTS	1	A	B	2	C	D
GRANULATED SUGAR	52.48	50.95	46.98	52.96	50.23	52.19
CORN SYRUP	42.78	41.53	38.29	43.17	40.95	42.54
ECHINACEA	1.74	1.7	1.71	0.87	0.84	0.85
PALM KERNEL OIL	0	2.82	0	0	4.98	0
PARTIALLY HYDROGENATED COTTONSEED OIL	0	0	10.02	0	0	1.42
RESIDUAL MOISTURE	3	3	3	3	3	3
TOTAL	100	100	100	100	100	100
PERCENT REDUCTION IN MOUTHFEEL+	-	64.6	81.5	-	71.3	57.5

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C. ECHINACEA IN A HARDGUM CANDY						
INGREDIENTS	5	G	H	6	I	J
SUGAR	31.54	28.08	30.57	31.84	31.35	30.1
CORN SYRUP	8.41	7.49	8.15	8.49	8.36	8.03
GUM SOLUTION*	50.82	45.25	49.26	51.31	50.52	48.5

*solution OF 53% Water & 47% Gum Arabic

(continued)

C. ECHINACEA IN A HARDGUM CANDY							
	INGREDIENTS	5	G	H	6	I	J
5	ECHINACEA	1.73	1.69	1.69	0.86	0.85	0.85
	PALM KERNEL OIL	0	9.99	0	0	1.42	0
10	PARTIALLY HYDROGENATED COTTONSEED OIL	0	0	2.83	0	0	5.02
	RESIDUAL MOISTURE	7.5	7.5	7.5	7.5	7.5	7.5
15	TOTAL	100	100	100	100	100	100
	PERCENT REDUCTION IN MOUTHFEEL+	-	73.2	49.9	-	60.4	65.6

+Percent Reduction in Mouthfeel = $\frac{[(\text{Control product mouthfeel intensity } @ 2.5 \text{ min} - \text{Test product mouthfeel intensity } @ 2.5 \text{ min})]}{\text{Control product mouthfeel intensity } @ 2.5 \text{ min}} \times 100$

15 [0027] Objective mouthfeel evaluations were made by a professional descriptive panel trained to measure differences in sensory attribute intensities over time. The panel was trained in the industry accepted method of Descriptive Analysis, which uses a universal 15 point line scale and appropriate reference material to quantify intensities of relevant attributes in comestibles.

20 [0028] Evaluations were made by presenting panelists with control and inventive products in a computer generated randomized order in containers marked with only 3-digit random codes. The panel consisted of eight members who performed three replicate evaluations for each sample. The resulting intensity data was statistically analyzed using SAS.

25 [0029] Formulas A and B were compared with formula 1; C and D with 2 G and H with 5; and, I and J with 6. The results of the panel test show that a significant reduction in mouthfeel effects was noted for the inventive examples upon comparison with the corresponding control.

EXAMPLE 2:

30 [0030] The following flavored, hard boiled candy formulations were prepared and evaluated by an panel skilled in the confectionery arts to show taste acceptability of formulations of the invention. Formula 7 was prepared as flavored control to provide the unsuppressed mouthfeel. Formulas K is inventive.

	7	K
35	CANDY BASE	98.1968
	ECHINACEA	1.7329
	SIBERIAN GINSENG	- 0.9500
40	PALM KERNEL OIL	- 1.000
	MINT FLAVOR	0.702 0.0973

45 [0031] Formula 7 was described as having a strong tingling sensation, almost a bum on the tongue. Formula K demonstrated a reduction of the tingling sensation caused by Echinacea as well as an acceptable suppression of the green grassy note from the Siberian Ginseng present in the formula.

Claims

50 1. A hard boiled candy composition or hard gum composition comprising
 (a) a confectionery base,
 (b) at least one botanical having an unpleasant mouthfeel comprising Echinacea, Siberian Ginseng, Ginkgo Biloba, Kola Nut, Goldenseal, Golo Kola, Schizandra, Elderberry, St. Johns Wort, Valerian or Ephedra and
 (c) from about 0.5 to about 5.0% by weight of said composition of one or more partially hydrogenated vegetable oils or saturated fats, said amount being effective to suppress said unpleasant mouthfeet of said botanical.

55 2. The candy composition or hard gum composition according to claim 1 wherein the saturated fat or partially hydrogenated vegetable oil is cottonseed, soybean, peanut, palm, sunflower seed or corn oil, and the saturated fat is

palm kernel oil, coconut oil, cocoa butter or butter.

3. The candy composition or hard gum composition according to claim 1 wherein the partially hydrogenated vegetable oil is partially hydrogenated cottonseed oil, palm kernel oil or butter or mixtures thereof.
5. The candy composition or hard gum composition according to claims 1 to 3 wherein the saturated fat or partially hydrogenated vegetable oil is present at 0.5% to 3.5%.
10. The candy composition or hard gum composition according to claim 4 wherein the saturated fat or partially hydrogenated vegetable oil is present at 0.75% to 3%.
15. The candy composition or hard gum composition according to claims 1 to 5 wherein the ratio of the saturated fat or partially hydrogenated vegetable oil to the botanical is from about 1/1 to about 1/0.1.
20. 7. The candy composition or hard gum composition according to claim 6 wherein the ratio of the saturated fat or partially hydrogenated vegetable oil to the botanical is from 1.0/0.6 to 1.0/0.15.
25. 8. The candy composition or hard gum composition according to claims 2 to 7 wherein the botanical is Echinacea.
30. 9. A method for suppressing the unpleasant mouthfeel of a hard boiled candy composition or hard gum composition which contains a botanical having an unpleasant mouthfeel comprising Echinacea, Siberian Ginseng, Ginkgo Biloba, Kola Nut, Goldenseal, Golo Kola, Schizandra, Elderberry, St. Johns Wort, Valerian or Ephedra, which comprises
 - (a) providing a confectionery base containing a botanical as defined above having an unpleasant mouthfeel, and,
 - (b) adding thereto from about 0.5% to about 5.0% by weight of said composition of one or more partially hydrogenated vegetable oils or saturated fats said amount being effective to suppress said unpleasant mouthfeel of said botanical.
35. 10. The method according to claim 9 wherein the partially hydrogenated vegetable oil is cottonseed, soybean, peanut, palm, sunflower seed or corn oil, and the saturated fat is palm kernel oil, coconut oil, cocoa butter, or butter or mixtures thereof.
40. 11. The method according to claim 9 wherein the saturated fat or partially hydrogenated vegetable oil is partly hydrogenated cotton seed oil, palm kernel oil or butter or a mixture thereof.
45. 12. The method according to claims 9 to 11 wherein the saturated fat or partially hydrogenated vegetable oil is present at 0.5% to 3.5%.
13. The method according to claim 12 wherein the saturated fat or partially hydrogenated vegetable oil is present at 0.75% to 3.0%.
14. The method according to claims 9 to 13 wherein the ratio of the saturated fat or partially hydrogenated vegetable oil to the botanical is from about 1/1 to about 1/0.1.
15. The method according to claim 14 wherein the ratio of the saturated fat or partially hydrogenated vegetable oil to the botanical is from 1.0/0.6 to 1.0/0.15.
50. 16. The method according to claims 9 to 15 wherein the botanical is Echinacea.

Patentansprüche

55. 1. Hartgekochte Konfektzusammensetzung oder harte Gummizusammensetzung, enthaltend
 - (a) einen Konfekt-Basisstoff,
 - (b) wenigstens einen pflanzlichen Stoff mit einem unangenehmen Mundgefühl, welcher Stoff Echinacea, si-

5 birischen Ginseng, Ginkgo Biloba, Kolanuss, kanadische Gelbwurzel (Goldenseal), Golo Kola, Schizandra, Holunderbeere, Johanniskraut, Baldrian oder Meerträubchen (Ephedra) aufweist und
 (c) zwischen etwa 0,5 bis etwa 5 Gew.-% der Zusammensetzung einer oder mehrerer teilweise hydrierter, pflanzlicher Öle oder gesättigter Fette, wobei die Menge zum Unterdrücken des unangenehmen Mundgefühls bei dem pflanzlichen Stoff wirksam ist.

10 2. Konfektzusammensetzung oder harte Gummizusammensetzung nach Anspruch 1, **dadurch gekennzeichnet, dass** das gesättigte Fett oder das teilweise hydrierte, pflanzliche Öl Baumwollsamen-, Sojabohnen-, Erdnuss-, Palm-, Sonnenblumensamen- oder Maisöl ist und dass das gesättigte Fett Palmkernöl, Kokosnussöl, Kakaobutter oder Butter ist.

15 3. Konfektzusammensetzung oder harte Gummizusammensetzung nach Anspruch 1, **dadurch gekennzeichnet, dass** das teilweise hydrierte, pflanzliche Öl ein teilweise hydriertes Baumwollsamenöl, Palmkernöl oder Butter oder ein Gemisch daraus ist.

20 4. Konfektzusammensetzung oder harte Gummizusammensetzung nach den Ansprüchen 1 bis 3, **dadurch gekennzeichnet, dass** das gesättigte Fett oder das teilweise hydrierte, pflanzliche Öl in Mengen von 0,5 % bis 3,5 % vorliegt.

25 5. Konfektzusammensetzung oder harte Gummizusammensetzung nach Anspruch 4, **dadurch gekennzeichnet, dass** das gesättigte Fett oder das teilweise hydrierte, pflanzliche Öl in Mengen von 0,75 % bis 3 % vorliegt.

6. Konfektzusammensetzung oder harte Gummizusammensetzung nach den Ansprüchen 1 bis 5, **dadurch gekennzeichnet, dass** das Verhältnis des gesättigten Fettes oder des teilweise hydrierten, pflanzlichen Öls zu dem pflanzlichen Stoff zwischen etwa 1/1 bis etwa 1/0,1 liegt.

30 7. Konfektzusammensetzung oder harte Gummizusammensetzung nach Anspruch 6, **dadurch gekennzeichnet, dass** das Verhältnis des gesättigten Fettes oder des teilweise hydrierten, pflanzlichen Öls zu dem pflanzlichen Stoff zwischen 1,0/0,6 bis 1,0/0,15 liegt.

8. Konfektzusammensetzung oder harte Gummizusammensetzung nach den Ansprüchen 2 bis 7, **dadurch gekennzeichnet, dass** der pflanzliche Stoff Echinacea ist.

35 9. Verfahren zum Unterdrücken des unangenehmen Mundgefühls einer hartgekochten Konfektzusammensetzung oder harten Gummizusammensetzung, welche einen pflanzlichen Stoff mit einem unangenehmen Mundgefühl aufweist, welcher Echinacea, sibirischen Ginseng, Ginkgo Biloba, Kolanuss, kanadische Gelbwurzel (Goldenseal), Golo Kola, Schizandra, Holunderbeere, Johanniskraut, Baldrian oder Meerträubchen (Ephedra) enthält, welches Verfahren aufweist:

40 (a) Vorsehen eines Konfekt-Basisstoffs, welcher einen zuvor definierten pflanzlichen Stoff mit einem unangenehmen Mundgefühl enthält, und
 (b) Hinzugeben von etwa 0,5 Gew.-% bis etwa 5,0 Gew.-% der Zusammensetzung eines oder mehrerer teilweise hydrierter, pflanzlicher Öle oder gesättigter Fette, wobei die Menge zum Unterdrücken des unangenehmen Mundgefühls bei dem pflanzlichen Stoff wirksam ist.

45 10. Verfahren nach Anspruch 9, **dadurch gekennzeichnet, dass** das teilweise hydrierte, pflanzliche Öl Baumwollsamen-, Sojabohnen-, Erdnuss-, Palm-, Sonnenblumensamenoder Maisöl ist und dass das gesättigte Fett Palmkernöl, Kokosnussöl, Kakaobutter oder Butter oder ein Gemisch daraus ist.

50 11. Verfahren nach Anspruch 9, **dadurch gekennzeichnet, dass** das gesättigte Fett oder das teilweise hydrierte, pflanzliche Öl ein teilweise hydriertes Baumwollsamenöl, Palmkernöl oder Butter oder ein Gemisch daraus ist.

12. Verfahren nach den Ansprüchen 9 bis 11, **dadurch gekennzeichnet, dass** das gesättigte Fett oder das teilweise hydrierte, pflanzliche Öl in Mengen von 0,5 % bis 3,5 % vorliegt.

55 13. Verfahren nach Anspruch 12, **dadurch gekennzeichnet, dass** das gesättigte Fett oder das teilweise hydrierte, pflanzliche Öl in Mengen von 0,75 % bis 3,0 % vorliegt.

14. Verfahren nach den Ansprüchen 9 bis 13, **dadurch gekennzeichnet, dass** das Verhältnis des gesättigten Fettes oder des teilweise hydrierten, pflanzlichen Öls zu dem pflanzlichen Stoff zwischen etwa 1/1 bis etwa 1/0,1 liegt.

5 15. Verfahren nach Anspruch 14, **dadurch gekennzeichnet, dass** das Verhältnis des gesättigten Fettes oder des teilweise hydrierten, pflanzlichen Öls zu dem pflanzlichen Stoff zwischen 1,0/0,6 bis 1,0/0,15 liegt.

16. Verfahren nach den Ansprüchen 9 bis 15, **dadurch gekennzeichnet, dass** der pflanzliche Stoff Echinacea ist.

10 **Revendications**

1. Composition de bonbon dur cuite par ébullition ou composition de gomme dure, comprenant:

15 (a) une matière de base de confiserie,
 (b) au moins une substance végétale conférant une sensation gustative désagréable, comprenant l'Echinacea, le ginseng de Sibérie, le Ginkgo biloba, la noix de Kola, le Sceau d'or, le Golo Kola, le Schizandra, les baies de sureau, le millepertuis, la valériane ou l'Ephedra, et
 (b) environ 0,5 à environ 5,0% en poids de ladite composition d'une ou plusieurs huiles végétales partiellement hydrogénées ou matières grasses saturées, ladite quantité étant efficace pour supprimer ladite sensation gustative désagréable de ladite substance végétale.

20 2. Composition de bonbon ou composition de gomme dure suivant la revendication 1, dans laquelle l'huile végétale partiellement hydrogénée est l'huile de graines de cotonnier, l'huile de soja, l'huile d'arachide, l'huile de palme, l'huile de graines de tournesol ou l'huile de maïs, et la matière grasse saturée est l'huile de palmiste, l'huile de coprah, le beurre de cacao ou le beurre.

25 3. Composition de bonbon ou composition de gomme dure suivant la revendication 1, dans laquelle l'huile végétale partiellement hydrogénée est l'huile de graines de cotonnier partiellement hydrogénée, l'huile de palmiste, le beurre ou leurs mélanges.

30 4. Composition de bonbon ou composition de gomme dure suivant les revendications 1 à 3, dans laquelle la matière grasse saturée ou l'huile végétale partiellement hydrogénée est présente en une quantité de 0,5 % à 3,5 %.

35 5. Composition de bonbon ou composition de gomme dure suivant la revendication 4, dans laquelle la matière grasse saturée ou l'huile végétale partiellement hydrogénée est présente en une quantité de 0,75 % à 3%.

40 6. Composition de bonbon ou composition de gomme dure suivant les revendications 1 à 5, dans laquelle le rapport de la matière grasse saturée ou de l'huile végétale partiellement hydrogénée à la substance végétale est comprise dans l'intervalle d'environ 1/1 à environ 1/0,1.

7. Composition de bonbon ou composition de gomme dure suivant la revendication 6, dans laquelle le rapport de la matière grasse saturée ou de l'huile végétale partiellement hydrogénée à la substance végétale est comprise dans l'intervalle de 1,0/0,6 à 1,0/0,15.

45 8. Composition de bonbon ou composition de gomme dure suivant les revendications 2 à 7, dans laquelle la substance botanique consiste en Echinacea.

9. Procédé pour supprimer la sensation gustative désagréable d'une composition de bonbon dur cuite par ébullition ou d'une composition de gomme dure qui contient une substance végétale conférant une sensation gustative désagréable, comprenant l'Echinacea, le ginseng de Sibérie, le Ginkgo biloba, la noix de Kola, le Sceau d'or, le Golo Kola, le Schizandra, les baies de sureau, le millepertuis, la valériane ou l'Ephedra, qui comprend les étapes consistant

55 (a) à fournir une substance de base de confiserie contenant une substance végétale répondant à la définition précitée conférant une sensation gustative désagréable, et
 (b) à y ajouter une quantité d'environ 0,5 % à environ 5,0 % en poids de ladite composition d'une ou plusieurs huiles végétales partiellement hydrogénées ou matières grasses saturées, ladite quantité étant efficace pour supprimer ladite sensation gustative désagréable de ladite substance végétale.

10. Procédé suivant la revendication 9, dans lequel l'huile végétale partiellement hydrogénée est l'huile de graines de cotonnier, l'huile de soja, l'huile d'arachide, l'huile de palme, l'huile de graines de tournesol ou l'huile de maïs, et la matière grasse saturée est l'huile de palmiste, l'huile de coprah, le beurre de cacao, le beurre ou leurs mélanges.
- 5 11. Procédé suivant la revendication 9, dans lequel la matière grasse saturée ou l'huile végétale partiellement hydrogénée consiste en l'huile de graines de cotonnier partiellement hydrogénée, l'huile de palmiste partiellement hydrogénée, le beurre ou un de leurs mélanges.
- 10 12. Procédé suivant les revendications 9 à 11, dans lequel la matière grasse saturée ou l'huile végétale partiellement hydrogénée est présente en une quantité de 0,5 % à 3,5 %.
13. Procédé suivant l'a revendication 12, dans lequel la matière grasse saturée ou l'huile végétale partiellement hydrogénée est présente en une quantité de 0,75 % à 3,0 %.
- 15 14. Procédé suivant les revendications 9 à 13, dans lequel le rapport de la matière grasse saturée ou de l'huile végétale partiellement hydrogénée à la substance végétale est compris dans l'intervalle d'environ 1/1 à environ 1/0,1.
- 15 16. Procédé suivant la revendication 14, dans lequel le rapport de la matière grasse saturée ou de l'huile végétale partiellement hydrogénée à la substance végétale est compris dans l'intervalle de 1,0/0,6 à 1,0/0,15.
- 20 16. Procédé suivant les revendications 9 à 15, dans lequel la substance végétale consiste en Echinacea.

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